Before the
Federal Communications Commission
Washington, DC 20554

In re	)	
	)	
Federal-State Joint Board on Universal Service	)	CC Docket No. 96-45
	)	
1998 Biennial Regulatory Review-Streamlined Contributor Reporting Requirements Associated with Administration of Telecommunications Relay Service, North American Numbering Plan, Local Number Portability, and Universal Service Support Mechanisms	)	CC Docket No. 98-171
	)	
Telecommunications Services for Individuals with Hearing and Speech Disabilities, and the Americans with Disabilities Act of 1990	)	CC Docket No. 90-571
	)	
Administration of the North American Numbering Plan and North American Numbering Plan Cost Recovery Contribution Factor and Fund Size	)	CC Docket No. 92-237 NSD File No. L-00-72
	)	
Number Resource Optimization	)	CC Docket No. 99-200
	)	
Telephone Number Portability	)	CC Docket No. 95-116
	)	
Truth-in-Billing and Billing Format	)	CC Docket No. 98-170

COMMENTS OF
ARCH WIRELESS OPERATING COMPANY, INC.

Carolyn W. Groves
Brian W. Higgins
Wilkinson Barker Knauer, LLP
2300 N Street, N.W., Suite 700
Washington, D.C. 20037-1128
(202) 783-4141

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SUMMARY

The record in this proceeding unequivocally demonstrates that a gross revenue-based assessment mechanism, coupled with a safe harbor, continues to be the most equitable, non-discriminatory, sustainable and least administratively burdensome federal Universal Service Fund ("USF") assessment mechanism.

Although Arch believes that each of the three non-revenue based assessment proposals is fatally flawed under a Section 254 analysis, if the FCC nonetheless forges ahead with any type of a connections-based contribution mechanism, the FCC should establish a capacity offset to fairly reflect the starkly different amount of spectrum capacity used by different industry segments, as well as the radically different amounts of capacity different kinds of networks consume on the public switched telephone network. Such an approach is clearly equitable and would be consistent with the FCC's own thinking in this regard.

Maintaining the sufficiency of the USF requires the Commission to maximize the number of payers. Any assessment mechanisms that eliminate the contribution obligations of particular industry segments will make sufficiency of the fund reliant on a smaller, less-diversified group of carriers, and could seriously jeopardize funding levels in the future. Further, excluding industry segments that rightfully should contribute under Section 254 would be inequitable and discriminatory vis-à-vis those that do contribute.

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To: The Commission

COMMENTS OF ARCH WIRELESS OPERATING COMPANY, INC.

Arch Wireless Operating Company, Inc. ("Arch") hereby submits its comments in response to the Second Further Notice of Proposed Rulemaking ("*FNPRM*") in the above-captioned proceedings.[1] Arch is the leading provider of one and two-way wireless messaging

[1] *Federal-State Joint Board on Universal Service; 1998 Biennial Regulatory Review; Telecommunications Services for Individuals with Hearing and Speech Disabilities, and the*
(continued on next page)

and information services in the U.S., operating local, regional and nationwide messaging networks across the country, including in the 100 largest markets, and in the U.S. Virgin Islands and Puerto Rico.

That the messaging industry is in decline is not news.[2] Unlike the broadband CMRS industry, which continues to realize ever-increasing subscribership and interstate telecommunications revenues,[3] the messaging industry is experiencing exact opposite trends.[4] Pure wireless messaging providers like Arch are seeing a significant decline in interstate revenues as traditional messaging customers migrate to cellular and PCS service plans which bundle messaging as a free service.[5] Although the two-way messaging portion of its business

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Americans with Disabilities Act of 1990; Administration of the North American Numbering Plan and North American Numbering Plan Cost Recovery Contribution Factor and Fund Size; Number Resource Optimization; Telephone Number Portability; Truth-in-Billing and Billing Format, Report and Order and Second Further Notice of Proposed Rulemaking, CC Docket Nos. 96-45, 98-171, 90-571, 92-237, 99-200, 95-116, 98-170, NSD File No. L-00-72, FCC 02-329 (rel. Dec. 13, 2002)("*R&O*" and "*FNPRM*").

[2] *See Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services*, Seventh Report, 17 FCC Rcd 12985, 13049-50 (2002)("*Seventh CMRS Report*")

[3] *Id.* at 12989 (total number of mobile telephony subscribers increased from 109.5 to 128.5 million (15%) from 2001-2002, and total revenues increased from $52.5 billion to $65 billion); *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services*, Sixth Report, 16 FCC Rcd 13350 (2001)("*Sixth CMRS Report*")(2001)(total number of mobile telephony subscribers increased 28% from 1999 to 2000, and total revenues increased from $40 billion to $52.5 billion). *Id.* at 13370.

[4] *See Seventh CMRS Report* at n. 443 ("The number of paging subscribers for the major carriers fell substantially during the past year [2001]"); *Sixth CMRS Report* at 13402 (total number of messaging subscribers fell 1% and total revenues declined approximately 3% from 1999 to 2000).

[5] In fact, the Commission acknowledged that both Arch and Metrocall, the two largest messaging carriers in the United States, generate approximately 90% of their revenues from traditional one-way paging; however, "[d]uring 2001, paging carriers endured financial difficulties as a result of
(continued on next page)

has experienced some growth, Arch has not realized a material change in calling patterns or increases in interstate revenue associated with these plans.[6] To make matters worse, Arch and other messaging carriers have experienced a significant decline in nationwide customers who might have otherwise placed/received a higher percentage of interstate messages.[7]

As a provider of messaging services, Arch is subject to federal universal service fund ("USF") contribution obligations, just as broadband CMRS carriers and other telecommunications service providers are; however, the per-connection and per-telephone number assessment mechanisms outlined in the *FNPRM* will have a disproportionately negative and harmful impact on messaging carriers as compared to the impact such proposals will have on other industry segments against which messaging carriers compete. Therefore, before it decides to eliminate the current revenue-based assessment mechanism, Arch exhorts the FCC to carefully consider the inequitable and anticompetitive effect these non-revenue based contribution mechanisms will have on the messaging industry so as to avoid adopting an assessment mechanism that violates Section 254 of the Act.[8]

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continuing decline in demand for traditional one-way paging services, which has long constituted the bulk of these carriers revenue, as well as intense competition from other mobile data providers in the market for more advanced mobile data services." *Seventh CMRS Report* at 13049-50, n. 443 (citations omitted).

[6] *See* Letter from Kenneth D. Patrich, counsel to Arch Wireless Operating Company, Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission (Oct. 31, 2002).

[7] *Id.*

[8] On February 26, 2003 -- two days before comments in this proceeding were due -- the Commission released a study estimating how USF contribution obligations would change under each of the non-revenue based proposals set forth in the *FNPRM*. *See Commission Seeks Comment on Staff Study Regarding Alternative Contribution Methodologies*, FCC 03-31, Public Notice (rel. Feb. 26, 2003). Arch has not yet had an opportunity to review the study in detail, and cannot therefore comment at this time on whether the calculations and assumptions on which they are based, are accurate and what their impact on messaging may be. Arch reserves the right
(continued on next page)

I. A GROSS REVENUE ASSESSMENT MECHANISM COUPLED WITH A SAFE HARBOR PERCENTAGE REMAINS THE MOST EQUITABLE, NON-DISCRIMINATORY AND SUSTAINABLE ASSESSMENT MECHANISM

The record in this proceeding unequivocally demonstrates that a revenue-based mechanism, coupled with a safe harbor, continues to be the most equitable, non-discriminatory, sustainable and least administratively burdensome federal USF assessment mechanism.[9] Consistent with Section 254(d) of the Act, a revenue-based assessment mechanism is competitively neutral. It does not give any particular industry segment a competitive advantage by exempting certain categories of carriers from having to contribute to federal USF. Further, a gross revenue assessment mechanism based on projected revenues does not place a disproportionate contribution obligation on carriers experiencing the dual dilemmas of sharply declining interstate telecommunications revenues.[10] A gross-revenue based assessment is also the most administratively flexible and least burdensome assessment contribution process to administer, for both regulators and carriers.[11] Using a gross-revenue methodology, and basing contribution assessments on projected rather than historic revenues, effectively accounts for both increases and decreases in interstate telecom revenues without requiring a wholesale revamp of the mechanism itself. For messaging carriers in particular, a gross-revenue methodology coupled with a safe harbor resolves the difficult dilemma of determining interstate versus intrastate

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to comment on the proposed assessment mechanisms in the separate comment cycle established for the study.

[9] Arch Wireless Comments at 2 (April 22, 2002); Metrocall Comments at 5 (Jan. 29, 2003); Verizon Wireless Comments at 22 (May 22, 2002).

[10] Metrocall at 4-8; American Association of Paging Carriers ("AAPC") Comments at 6 (April 22, 2002).

[11] *See R&O* ¶ 23.

telecommunications revenues.[12] In fact, the FCC has already recognized the fatal flaws of non-revenue based assessment mechanisms. Earlier in this very proceeding, the FCC rejected non-revenue based methods as administratively burdensome and potentially discriminatory.[13] Arch agrees with Metrocall Holdings, Inc., and other commenters in this proceeding that nothing has changed that would undermine these two conclusions.[14] Because (1) nothing has occurred which makes the FCC's rejection of non-revenue based approaches any less a good decision now than it was five years ago, (2) the overwhelming evidence in the record supports retention of the gross-revenue approach, and (3) the inequities and administrative burdens inherent in the per-connection and per-telephone number assessment mechanisms, Arch believes the FCC should retain the current revenue-based contribution assessment mechanism.

II. IF THE COMMISSION DOES NOT RETAIN A REVENUE-BASED ASSESSMENT MECHANISM, A CAPACITY-BASED, PER-CONNECTION ASSESSMENT MECHANISM IS THE NEXT BEST ALTERNATIVE

The Commission has requested comment on three non-revenue based assessment mechanisms. Although Arch believes each proposal is fatally flawed under a Section 254

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[12] It is often difficult for messaging carriers to precisely calculate interstate revenues because of the design of their networks. Unlike broadband networks, messaging networks do not generally follow customers through a service area, determining the closest transmitter from which to terminate a communication based on signal strength measurements. Instead, messaging networks simultaneously terminate a communication at multiple locations throughout a service area (sometimes on a multi-state basis). In 1998, the Commission recognized this reality and adopted the 12% messaging safe harbor. *Federal-State Joint Board on Universal Service*, Memorandum Opinion and Order and Further Notice of Proposed Rulemaking, 13 FCC Rcd 21252 ¶ 13 (1998). This safe harbor was based on interstate revenue estimates previously reported by messaging carriers and has never been challenged or shown to be too small a figure. *Id.* To the contrary, some parties have suggested in this proceeding that a 1% safe harbor more closely approximates interstate revenue percentages of messaging carriers. *See* Joint Comments of Advanced Paging, Inc. et al. (Jan. 11, 1999); AAPC at 5.

[13] *Federal-State Joint Board on Universal Service*, Report and Order, 12 FCC Rcd 8776, ¶ 852 (1997).

analysis, if the FCC nonetheless forges ahead with any type of a connections-based contribution mechanism, the FCC should establish a capacity offset to fairly reflect the starkly different amount of spectrum capacity used by different industry segments, as well as the radically different amounts of capacity different kinds of networks consume on the public switched telephone network ("PSTN"). Such an approach is clearly equitable and would be consistent with the FCC's own thinking in this regard.[15]

First, one-way messaging devices utilize no more than one-twentieth the capacity of a CMRS voice connection. Similarly, two-way messaging devices utilize no more that one-tenth the capacity of a CMRS voice connection. Second, messaging networks, by design, take up far less capacity on the PSTN than broadband CMRS and wireline voice connections. Messaging networks transmit communications in short bursts but CMRS and wireline networks maintain continuously open connections with customer devices.[16]

In light of these operational realities, Arch believes that under any per-connection proposal, one-way messaging should be assessed a per-connection rate of no more than one-twentieth the rate applicable to a CMRS voice connection, and two-way messaging should be

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[14] Metrocall at 6

[15] *FNPRM* at ¶ 75 (under the first connections-based proposal, multi-line business users assessed on the basis of capacity); *Id.* at ¶ 87 (under the second proposal, assessments do not distinguish between business and residential, but are based purely on capacity); *Id.* at ¶ 96 (under the third proposal, carriers without assigned numbers assessed on the basis of the capacity of end-user connections).

[16] The transmission of a 90-character message generally takes only 300 milliseconds of airtime on a one-way messaging network and only 152 milliseconds of airtime on a two-way messaging network. In addition to the time it takes to transmit the message over the paging radio network, with one-way paging traffic the paging network typically is connected to the wireline network for approximately 15 seconds while the wireline customer inputs the numeric page. This contrasts with the average connection time of approximately 2 minutes for a CMRS voice call, and even longer for a wireline voice call. See Letter from L. Charles Keller, counsel to Arch, to Marlene H. Dortch, Secretary, Federal Communications Commission (Sept. 19, 2002).

assessed at a rate no more than one-tenth the rate applicable to a CMRS voice connection.[17] Further, Arch suggests that the FCC define capacity to reflect actual as opposed to prospective use (*i.e.*, capacity multiplied by the time duration of a connection).

A. Mandatory/Minimum Assessment Mechanism

The first connections-based proposal proffered by the *FNPRM* would involve assessing USF contributions on the basis of a per-connection charge or as a set percentage of interstate revenue, whichever is greater. Under the first prong of this formula, messaging carriers would pay a monthly rate equal to $ 0.10 per one-way device, and $ 0.20 per two-way device, representing an increase of approximately 42.9 % and 285.7 %, respectively, from the current assessment rate of approximately $ 0.07 per unit.[18] Arch agrees with other messaging carriers that such drastic increases, coupled with the messaging industry's absolute inability to absorb such costs (or to pass them along to subscribers without subscribers canceling service in favor of PCS or cellular), could place the industry in a fatally anti-competitive position vis-à-vis broadband CMRS providers and others who are financially better situated to absorb such costs (or pass them along to customers without experiencing significant churn).[19] In fact, the industry's consistently and rapidly declining interstate telecommunications revenues suggest that its USF obligations should be decreasing or remaining relatively static – not increasing dramatically.

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[17] Whereas voice networks typically provide capacity of 64 kilobits per second ("kbps"), one-way paging networks typically provide a transmission rate of 3.2 kbps or less (one-twentieth of the capacity of a voice grade connection) and two-way messaging networks typically provide a transmission rate of 6.4 kbps (one-tenth of a voice-grade connection).

[18] Arch Wireless at 2.

[19] *See supra* notes 3-4.

At a minimum, the FCC needs to take into account the capacity discrepancies outlined above when adopting the per-connection rate assessed the messaging industry. If $1.00 per-connection is the appropriate assessment rate for CMRS voice connections, as the *FNPRM* suggests, then the Commission should reduce the proposed per-connection fee for one-way messaging units from $0.10 to at least $0.05 (*i.e.*, to one-twentieth the CMRS voice connection rate to reflect one-twentieth the capacity), and the proposed per-connection fee for two-way units should be reduced from $0.20 to at least $0.10 (*i.e.*, one-tenth the CMRS voice connection rate to reflect no more than one-tenth the capacity).

Under the second prong of the proposal, carriers would be required to contribute to USF, at a minimum, a flat percentage of their interstate revenue as offset by the per-connection charge. Arch submits that rather than requiring carriers to pay the greater of these two charges, their assessment should be based on the lesser of these charges. Requiring carriers to pay the greater of these amounts would unfairly penalize industry sectors that have a comparatively greater number of connections, but a smaller amount of interstate revenue per-connection. For example, the messaging industry has a relatively large number of units in service but a relatively small amount of interstate revenue generated per unit. Allowing carriers to pay the lesser of a connections-based charge or a charge based on a flat percentage of interstate telecommunications revenue would provide appropriate relief to carriers experiencing a decline in total connections, revenue per unit, or both.

B. Splitting Assessments Between Access And Transport

The second connections-based proposal proffered by the FCC Commission involves categorizing connections as either "switched access" (*i.e.*, those carriers that provide access to the public switched telephone network) or "interstate transport" (*i.e.*, inter-exchange carriers), and making assessments on the basis of different capacity tiers applicable to each.[20] Arch does not believe it can fully comment on this proposal because the *FNPRM* provided so few details about it; however, Arch notes the Commission suggests that one-way pagers would be treated as one-half of an access connection, and two-way pagers would be deemed to be one access connection. Any assessment mechanism based on capacity needs to accommodate the fact that one-way pagers utilize no more than one-twentieth, and two-way pagers no more than one-tenth, the capacity of a CMRS voice connection. Any assessment mechanism that roughly equates the capacity of paging units with CMRS voice units would be patently unfair and in violation of Section 254(d). Finally, to the extent interstate transport providers may be incapable of determining their total number of connections, as the *FNPRM* suggests, Arch does not think the proposal will do much to advance the objective of bringing greater certainty to the USF assessment process.

C. Telephone Number-Based Assessments

The third non-revenue-based proposal "would assess providers on the basis of telephone numbers assigned to end users (assigned numbers), while assessing special access and private lines that do not have assigned numbers on the basis of the capacity of those end-user connections."[21] As with the two other proposals, the FCC seeks comment on how a telephone number-based assessment mechanism would impact carriers that provide smaller amounts of capacity, and whether to assess messaging carriers at a lower rate.

Of the three connections-based assessment proposals, this one is the least developed. In particular, the *FNPRM* does not even hazard a guess as to what the per-telephone number rate

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[20] *FNPRM* at ¶ 87.

[21] *Id.* at ¶ 96.

would need to be in order to sustain the current level of USF contributions, nor does it explain how the USF obligations of particular carriers or industry sectors may increase or decrease. Arch submits that without this basic information, it is impossible to meaningfully comment on the overall equities of this proposal;[22] however, Arch disagrees with what appears to be a fundamental assumption underlying the proposal -- that all numbers are created equal. Just as a per-connection proposal needs to reflect the different capacity issues facing messaging as compared to those faced by broadband CMRS providers, so too must a per-telephone number assessment mechanism. The appropriate rate of assessment should be commensurate regardless of the number of telephone numbers assigned to end-users.

III. THE SUFFICIENCY OF THE FUND DEPENDS ON MAXIMIZING THE NUMBER OF PAYERS, AND REQUIRING LARGER CONTRIBUTIONS FROM CARRIERS WITH GREATER INTERSTATE TELECOMMUNICATIONS REVENUES

The *FNPRM* seeks comment on whether changes to the revenue-based methodology adopted in the *R&O*, or adoption of a per-connection or per-telephone number assessment mechanism, will be sufficient to ensure the long-term viability of the federal USF.[23] Because only the Universal Service Administrative Company ("USAC") has aggregate universal service contribution data, USAC alone can determine whether a particular assessment mechanism will be sufficient. This fact notwithstanding, surely the most effective and reliable means of ensuring the sufficiency of USF is to maximize the number of payers. Any mechanism that excludes industry segments from having to contribute makes sufficiency of the fund reliant on a smaller, less-diversified group of contributors whose financial stability or instability could seriously jeopardize funding levels. Further, excluding industry segments that rightfully should contribute

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[22] *See supra* note 8.

[23] *Id.* at 67.

under Section 254 would be inequitable and discriminatory vis-à-vis those that do contribute. If the Commission implements assessment mechanisms that have the effect of significantly reducing the contribution obligations of particular industry sectors, it must do the same for other industry segments that are similarly situated.

CONCLUSION

For the reasons set forth herein, Arch respectfully submits that the Commission should retain a revenue-based USF assessment methodology. If a non-revenue based assessment mechanism is adopted, Arch believes that one-way messaging should be assessed a per-connection rate of no more than one-twentieth the rate applicable to a CMRS voice connection, and two-way messaging should be assessed at a rate no more than one-tenth the rate applicable to a CMRS voice connection. As noted herein, Arch is in the process of evaluating the information that the Commission released just two days ago regarding the impact of each non-revenue based proposal. Arch will address this new data in its comments on the report due March 31, 2003.

Respectfully submitted,

Arch Wireless Operating Company

By: ______________________
Carolyn W. Groves
Brian W. Higgins

Wilkinson Barker Knauer, LLP
2300 N Street, N.W., Suite 700
Washington, D.C. 20037-1128
(202) 783-4141

Its Attorneys.

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